

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE N/A		PAGE 1 OF 8 PAGES		
2. AMENDMENT/MODIFICATION NO. 0005		3. EFFECTIVE DATE AUG. 05, 2002		4. REQUISITION/PURCHASE REQ. NO. N/A		5. PROJECT NO. (If applicable) SPEC. NO. 1214	
6. ISSUED BY CODE		7. ADMINISTERED BY (If other than Item 6) CODE					
DEPARTMENT OF THE ARMY U.S. ARMY ENGINEER DISTRICT, SACRAMENTO SACRAMENTO, CALIFORNIA 95814-2922				DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT P.O. BOX 532711 LOS ANGELES, CALIFORNIA 90053-2325			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				<div>(√)</div> <div>×</div>			9A. AMENDMENT OF SOLICITATION NO. DACA05-02-B-0004
				9B. DATED (SEE ITEM 11) N/A			
				10A. MODIFICATION OF CONTRACTS/ORDER NO. N/A			
				10B. DATED (SEE ITEM 13) N/A			
CODE		FACILITY CODE					

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

N/A

NOTE: ITEM 13 BELOW IS N/A.

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(√)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. N/A
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority) N/A

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

FIRE/CRASH RESCUE STATION
MARCH AFB, CA.

1 Encl

1. Revised Pages: Section 02722 Included (Page 6 & 7 Revised)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) e		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED

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DIVISION 02 - SITE WORK

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SECTION 02722N

GRADED CRUSHED AGGREGATE BASE COURSE FOR FLEXIBLE PAVEMENT

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 117	(1995) Materials Finer than 75-Micrometer (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C 131	(1996) Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C 136	(1996; Rev. A) Sieve Analysis of Fine and Coarse Aggregates
ASTM D 75	(1987; R 1992) Sampling Aggregates
ASTM D 1556	(1990; R 1996) Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 1557	(1991) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft (2,700 kN-m/m))
ASTM D 1883	(1994) CBR (California Bearing Ratio) of Laboratory-Compacted Soils
ASTM D 2217	(1985; R 1993) Wet Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants
ASTM D 2922	(1996) Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
ASTM D 3017	(1996) Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
ASTM D 3740	(1999c) Minimum requirements for Agencies Engaged in Testing and/or Inspection of soil and Rock Used in Engineering Design and Construction
ASTM D 4318	(1998) Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D 5255	(1997e1) Certification of Personnel

Engaged in the Testing of Soil and Rock

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CDT)

(1999) Standard Specifications

U.S. ARMY CORPS OF ENGINEERS (USACE)

COE CRD-C 171

(1995) Test Method for Determining
Percentage of Crushed Particles in
Aggregate

1.2 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-06 Test Reports

Gradation

Bearing ratio

Liquid limit

Plasticity index

Percentage of wear

Density

Gradation

Smoothness

Density

Thickness

1.3 DELIVERY AND STORAGE

Inspect materials delivered to site for damage and store as to prevent segregation and contamination.

1.4 WEATHER LIMITATIONS

Do not construct base course when atmospheric temperature is below 2 degrees C or when rainfall or other weather conditions detrimentally affect the quality of the finished course.

1.5 CONSTRUCTION EQUIPMENT

Equipment shall be dependable and adequate for the purpose intended. Maintain equipment in satisfactory and safe operating condition. Subject to approval, special equipment dictated by local conditions may be used. Calibrated equipment, such as scales, batching equipment, spreaders, and similar items, shall have been recalibrated by a State calibration laboratory within 12 months of commencing work.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Aggregates

Consist of durable and sound crushed gravel or crushed stone, free of lumps or balls of clay or other objectionable matter. Crushed stone and gravel shall be free from flat, elongated, soft, or disintegrated pieces. Crushed gravel retained on a 4.75-millimeter sieve shall have at least 90 percent by weight with at least two fractured faces and 100 percent by weight with at least one fractured face. fractured faces shall be determined in accordance with COE CRD-C 171. Base course materials samples shall have a bearing ratio of at least 100 as determined by laboratory tests on a 4-day soaked specimen in accordance with ASTM D 1883; compact specimen in accordance with ASTM D 1557, Method D. Determine grain size in accordance with ASTM C 136 and amount of material finer than 75 micrometers sieve in accordance with ASTM C 117. Aggregate shall have a percentage of wear not exceeding 40 when tested in accordance with ASTM C 131, Grading A. Soil binder material, that portion of material passing the 425-micrometer sieve, shall be of such composition that the composite material conforms to the requirements specified herein. The base course shall be of such nature that it can be compacted readily with watering and rolling to a firm, stable base and shall conform to one of the following sizes:

<u>Percentage by Weight Passing</u> <u>Square Mesh Laboratory Sieves</u>		
<u>Size Numbers</u>		
<u>Sieves</u>	<u>Operating Range</u>	<u>Contract Compliance</u>
25.0 mm	100	100
19.0 mm	90-100	87-100
4.75 mm	35-60	30-65
600 micrometers	10-30	5-35
75 micrometers	2-9	0-12

Gradations are similar to 19-mm Maximum gradation of Section 26 of the State of California Department of Transportation *Standard Specifications*. That portion of the material passing the 425 micrometers sieve shall have a liquid limit of not more than 25 and a plasticity index of not more than 5 as determined by ASTM D 4318. Prepare samples in accordance with ASTM D 2217, Procedure A.

PART 3 EXECUTION

3.1 BASE COURSE

Construct the graded aggregate base course on a prepared subgrade, as indicated. Provide line and grade stakes for control. Place grade stakes in lanes parallel to the centerline of areas to be paved and space for string lining or other control methods. The base course shall consist of aggregate processed, deposited, spread, and compacted on a prepared surface. The Contractor shall be responsible for protection of completed areas against detrimental effects. Recondition, reshape, and recompact areas damaged by rainfall or other weather conditions.

3.2 MIXING OF MATERIALS

Mix aggregates in a stationary or traveling plant. Proportion aggregates by weight or volume in such quantities that specified gradation, liquid limit, and plasticity index requirements are met after the base course has been placed and compacted. Incorporate, during the mixing operation, water in quantities sufficient to provide the necessary moisture content for the specified compaction. Mixing operations shall produce satisfactory uniform blending and the method of discharging into trucks shall not produce segregation.

3.3 PLACING

Do not dump mixed materials in piles, but place on prepared subgrade or subbase in layers of uniform thickness with a spreader. When a compacted course 150 millimeters in thickness is required, place material in a single layer. When a compacted course in excess of 150 millimeters is required, place material in layers of equal thickness. Do not exceed 150 millimeters or have less than 75 millimeters in thickness for any compacted layer. Place layers so that when compacted, they will be true to grades or levels required with the least possible surface disturbance. Where the base course is constructed in more than one layer, clean previously constructed layers of loose and foreign matter. Maintain material water content during the placing period to obtain the compaction specified. Make adjustments in placing procedures or equipment to obtain true grades, to minimize segregation and degradation, to reduce or increase water content, and to insure a satisfactory base course.

3.3.1 Stationary-Plant Method

Mix aggregates, binder material and water until a uniform homogeneous mixture is obtained. Do not dump materials in piles; place in layers of essentially uniform thickness, not to exceed 150 millimeters after compaction, by an approved spreader. Tail gate spreading will be acceptable only with permission, under conditions such as where space limitations prohibit use of the spreader.

3.3.2 Windrow Traveling-Plant Method

Place aggregates and binder materials in windrows of such cross section and proportions that, when picked up, mixed, and redeposited in windrows, the finished mixture shall conform to the specified requirements. Do not exceed the rated capacity of the traveling plant with the size of the windrow of the combined materials. Add water, in quantity sufficient to provide the necessary moisture content for compacting, to the aggregates at the time of mixing. Mix materials uniformly by the traveling plant, deposit in windrows of uniform cross section, and spread in a layer of uniform thickness to the required contour and grades.

3.4 COMPACTING AND FINISHING

Immediately following the placing, spread the finished mixture uniformly in a layer and bring to optimum moisture content. The loose thickness and the surface of the layer shall be such that the specified density and the required thickness shall be obtained after compaction. Compact the layer with steel-faced, vibrating or pneumatic-tired rollers, or other suitable compacting equipment or combinations thereof. Continue compacting until the layer is compacted through the full depth to the field densities shown on the Contract drawings. Field density and water content shall be tested in accordance with ASTM D 1556, ASTM D 2922 and ASTM D 3017. When the

nuclear gauge is used, a minimum of one sand cone check test shall be performed for every five (5) nuclear gauge tests. In areas not accessible to rollers or compactors, compact the mixture with mechanical hand tampers.

If the mixture is excessively moistened by rain, aerate by blade graders, or other suitable equipment. Aerate until the moisture content of the material is that needed to obtain the required density. Finish the surface of the layer by a combination of rolling and blading. Final surface shall be smooth and free from waves, irregularities, and ruts or soft yielding spots.

3.5 FINISHING AT EDGES OF BASE COURSE

Place earth or other approved materials along the edges of the base course in such quantity that it will compact to the thickness of the course being constructed. When the course is being constructed in two or more layers, place material to the thickness of each layer. In each operation, allow at least a 300-millimeter width of the shoulder to be rolled and compacted simultaneously with the rolling and compacting of each layer.

3.6 FIELD QUALITY CONTROL

The testing laboratory shall meet the appropriate requirements outlined in ASTM D 3740. Testing personnel shall be certified in accordance with ASTM D 5255. Approve materials and material sources in advance of the use of such materials in the work. Replace base where samples are removed. Provide duplicate samples to the Contracting Officer on an average of two (2) samples a week. Take duplicate samples at the same time and in the same manner as the original.

3.6.1 Sampling

3.6.1.1 Aggregates at the Source

Prior to production and delivery of aggregates, take at least one initial sample in accordance with ASTM D 75. Collect each sample by taking three incremental samples at random from the source material to make a composite sample of not less than 23 kilograms. Repeat above sampling when source of material is changed or when unacceptable deficiencies or variations from specified grading of materials are found in testing.

3.6.1.2 During Construction

Take one random sample from the completed course material per each day's run. Take samples in accordance with ASTM D 75.

3.6.1.3 Sample Identification

Place each sample in a clean container, securely fastened to prevent loss of material. Tag each sample for identification and with the following information:

Contract No. _____
Sample No. _____ Quality _____
Date of Sample _____
Sampler _____
Source _____
Intended Use _____
For Testing _____

3.6.2 Testing

3.6.2.1 Aggregates

Test each sample of base course material without delay. Make gradation tests from each sample in accordance with ASTM C 136. Make sieve analysis on material passing the 75-micrometers sieve in accordance with ASTM C 117.

3.6.2.2 Smoothness Tests

Test with a 3-meter straightedge, applied parallel with and at right angles to the center line of the paved area. Correct deviations in the surface in excess of 10 millimeters by loosening, adding or removing material, reshaping, watering, and compacting. The smoothness requirements specified herein apply only to the top layer when base course is constructed in more than one layer.

3.6.2.3 Field Density Tests

ASTM D 1556 and/or ASTM D 2922 and ASTM D 3017. Take one test for each 420 square meters of each layer of base course.

3.6.2.4 Laboratory Density Tests

In accordance with ASTM D 1557, Method D.

3.6.2.5 Thickness Tests

Measure thickness of base course at intervals such that there will be a depth measurement for at least each 100 square meters of complete base course. The thickness shall be measured by taking differential elevations at predetermined locations between the top of the finished subgrade and the top of the completed aggregate base course. Where the base course deficiency is more than 13 millimeters, correct by scarifying, adding mixture of proper gradation, reblading, and recompacting. Where the measured thickness is more than 13 millimeters thicker than indicated, consider it as the indicated thickness plus 13 millimeters for determining the average. The average thickness is the average of the depth measurements and shall not underrun the thickness indicated.

3.7 MAINTENANCE

After construction is completed, maintain the base course throughout, except where portion of the succeeding course is under construction thereon. Maintenance includes drainage, rolling, shaping, and watering, as necessary, to maintain the course in proper condition. Correct deficiencies in thickness, composition, construction, smoothness, and density, which develop during the maintenance, to conform to the requirements specified herein. Maintain sufficient moisture by light sprinkling with water at the surface to prevent a dusty condition or prime coat the surface in accordance with Section 02748 BITUMINOUS TACK AND PRIME COATS.

-- End of Section --